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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,351	06/06/2001	Doug Joseph	BEA92001008US1	9150

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IBM CORPORATION
IP LAW DEPT, ED02-905
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EXAMINER

POLTORAK, PIOTR

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/876,351	Applicant(s) JOSEPH ET AL.	
	Examiner Peter Poltorak	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/06/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 have been examined.

Drawings

2. The drawings are objected to because line 106 separating columns 102 and 104 in Fig. 1 is not labeled (*The specification, pg. 6 line 2*).
3. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The Technical Background (*the specification, pg. 8*) discusses invention as related to Fig. 2. The text describes the invention as follows: "The first node and the second

Art Unit: 2134

node correspond to different servers in the system, but they may also correspond to different partitions of the same server. In such instance, the partitions of the first node are not distinctive and represent the same partition, and the partitions of the second node are not distinctive and represent the same partition."

The language as cited is confusing suggesting that different partitions are not distinctive, where (as the examiner believes) the not distinctiveness is only directed towards servers with only one partition.

5. The examiner believes that label "(510)" is incorrect. It appears that "(508)" is the correct label (*the specification, line 2 pg. 14*).

Clarification is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 15-18 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer signal must be embodied on a computer readable medium such as hard drive, magnetic tape, CDs etc. The medium such as a modulated carrier signal as specified in the specification and claim 20 does not satisfy the condition of statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2134

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 9-14 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention.
8. Claim 9 is not understood. In computers hardware and software are implemented "side by side". Software implements instruction using hardware, hardware executes software programs. For further examination the meaning of the statement is treated similarly to "the second keys inaccessible by the second processes" limitation in claim 11.
9. Claim 10 is not understood. It is not clear whether the verification has any purpose (*e.g. regardless of the key verification outcome the message is processed*) or whether claim 10 is incomplete having some limitation missing.
10. Claim 11 recites: "a first connection management mechanism at a first node to maintain first keys for secure communication to first processes running in one or more first partitions of the first node from second processes running in one or more second partitions of a second node". It is not clear whether the cited first and second partitions refer to some partitions that are on the first and second node or whether they refer to the specific partitions and "a first connection management mechanism at a first node to maintain first keys for secure communication to first processes running in one or more first partitions of the first node from second processes running in one or more first partitions of a second node" would not read on the claim limitation. However, if the former the interpretation of claim limitation is

correct it is not clear how is it possible to have one partition but have processes running on a second partition.

11. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. It is unclear how a modulated carrier signal relates to claim 15.

12. Claims 12-14 are rejected by virtue of their dependence.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-7, 11, 14-15 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Stein (Lincoln D. Stein, "Web Security, a step-by-step reference guide", 1998, ISBN: 0201634899)*.

14. As per claim 1 *Stein* teaches sending a key (*premaster secret*), identification of the first node, and identification of the second node from hardware of the first node (*client browser*) to hardware of the second node (*server*) (*pg. 41, Fig. 3.2 transaction 6, and pg. 42 first §*), receiving the key identification of the first node, and identification of the second node by the hardware of the second node and verifying the identification of the first node (*pg. 41, Fig. 3.2, transaction 7, pg. 42 second §*) and the identification of the second node at the hardware of the second node, and storing the key at the hardware of the second node (*pg. 42 first §*).

15. *Stein* teaches limitation of claim 2 on in first § on pg. 42.
16. Claims 11 and 15 are substantially equivalent to claim 1; therefore claims 11 and 15 are similarly rejected.
17. As per claims 5 and 6 TCP/IP includes source and destination ports.
18. As per claim 11 an application within the computer system environment runs using processes. Each layer in TCP/IP (*or any other OSI "compatible" architecture*) has different responsibilities and processes at each layer carrying these responsibilities have different functions. In the *Stein's* teaching the SSL communication is invoked by web browser/server interaction and a process invoking SSL mechanism has no access to keys, which are produced and used at SSL level.
19. As mentioned in the 101 rejection above the modulated carrier signal medium is not statutory. For purposes of examination the examiner considers claim 20 being directed to the signal embodied on multiple types of computer medium: memory, hard drive, wire etc. As a result the limitation of claim 20 is inherent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

20. Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by *Win et al.* (U.S. Patent No. 6161139).
21. As per claim 1, *Win et al.* teach sending a key (*cookie*) from hardware of the first node (*web server*) to hardware of the second node (*client's web browser*) which is

stored at the hardware of the second node (*col. 6 lines 25-29*). The application uses TCP/IP and as a result the first node and the second node verifies first node and second node identification.

22. As per claim 10, *Win et al.* teach the second node sending the key and the message to the first node, which verifies the key and processes the message (*URL, col. 6 lines 29-33 and 37-44*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Stein*

(*Lincoln D. Stein, "Web Security, a step-by-step reference guide", 1998, ISBN: 0201634899*).in view of *Ogawa et al. (U.S. Patent No. 5802065)*.

24. *Stein* teaches verifying the identification of the first node and the identification of the second node at the hardware of the second node as discussed above. *Stein* do not explicitly teach verifying the identification of the first node and the identification of the second node at the hardware of the second node comprising verifying the identification of the first node and the identification of the second node in a channel state table accessible by the hardware of the second node and accessible by the software of the second node. *Ogawa et al.* teach verifying the identification of one node and the identification of another node in a channel state table accessible by the

hardware of the one node and accessible by the software of the one node (*Ogawa et al. col. 4 lines 50-56 and col. 5 lines 4-11*). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to verify the identification of the first node and the identification of the second node in a channel state table accessible by the hardware of the second node and accessible by the software of the second node as taught by *Ogawa*. One of ordinary skill in the art would have been motivated to perform such a modification in order to enhance security and operation speed (*Ogawa, col. 5 lines 1-11*).

25. Claims 9, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Stein* (U.S. Pub. No. 20020087884) in view of *Baker et al.* (U.S. Patent No. 6611498).

26. *Stein* teaches storing the key at the hardware of the second node as discussed above. *Stein* does not teach storing the key comprising storing the key in a key table. *Baker et al.* teach storing the key comprising storing the key in a key table (*Baker et al., col. 17 lines 4-18*). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to store the key in the key table as taught by *Baker et al.* One of ordinary skill in the art would have been motivated to perform such a modification in order to map keys to the associated session (*col. 17 lines 10-11*).

27. Claims 12, 13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Stein* (U.S. Pub. No. 20020087884) in view of *Baker et al.* (U.S. Patent No.

Art Unit: 2134

6611498) and *Ogawa et al.* (U.S. Patent No. 5802065) and further in view of *Bean et al.* (U.S. Patent No. 4843541).

28. *Stein* in view of *Baker et al.* and further in view of *Ogawa et al.* teach a first and a second key table and first and second connection tables as discussed above. *Stein* in view of *Baker et al.* and further in view of *Ogawa et al.* do not explicitly teach node entries identifying one of the one or more partitions in which processes are running on the nodes. *Bean et al.* teach unique partition identifiers identifying nodes partitions (col. 50 lines 55-66). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include partition identifiers as taught by *Bean et al.* within the first and second connection tables. One of ordinary skill in the art would have been motivated to perform such a modification in order to extend the security enhancement and operation speed to systems wherein plurality of different preferred guest programming systems could run simultaneously in the different partitions (col. 1 lines 13-19).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571)272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571) 272-3838. The fax phone

Art Unit: 2134


number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Signature

1/4/05

Date


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